CITY OF MOUNTAIN VIEW

MEMORANDUM

Public Works Department

DATE: May 2, 2016

TO: Council Transportation Committee

FROM: Linda Forsberg, Transportation and Business Manager
Michael A. Fuller, Public Works Director

SUBJECT: **Automated Guideway Transportation Feasibility Study—Proposed Scope of Work**

RECOMMENDATION

Provide input regarding the proposed scope of work for an Automated Guideway Transportation (AGT) feasibility study.

BACKGROUND

At the February 2, 2016 City Council meeting, staff proposed conducting a feasibility study to assess if and how the introduction of an AGT system might be successfully integrated over time into the transportation improvement strategies and projects the City will be undertaking to support the City's continued economic growth and vitality, and also the quality of life of its residents.

In previous discussions, the City Council provided direction to staff that priority focus for this effort should be given to the corridor linking the Downtown Transit Center to the City's North Bayshore Area.

For purposes of this discussion, a fairly broad definition of automated or advanced guideway transit systems is being used so as to not presuppose or preclude any particular transportation technology from consideration. The systems can be elevated or at-grade, move on rubber tires, steel wheels, rails, or cables, and they can be powered by onboard batteries, electricity, or another energy source. The use of the word *guideway* within the AGT term is also intended to be very general to mean a separated roadway, path, or other facility that vehicles can travel on or within.

After considerable Council and public discussion regarding the proposed feasibility study, the Council directed staff to:

- Return to the Council Transportation Committee (CTC) to gather additional public input regarding the scope of work for the feasibility study and the criteria to be used in determining whether or not an AGT system might be successfully implemented in Mountain View.

- Prepare and submit a capital improvement project (CIP) request for an AGT feasibility study as part of the Fiscal Year 2016-17 CIP development and approval process.

DISCUSSION

AGT Feasibility Study

Based on the Council and public input received during the February 2 discussion, staff has drafted a revised and more detailed proposed scope of work for the AGT feasibility study (Attachment 1).

The scope of the study has been broadened and more fully defined to include the following:

- Assessing the passenger demand/market to be served by an AGT system.

- Identifying options for system design and operating requirements.

- Identifying a range of potential transportation technologies to serve the Downtown Transit Center to North Bayshore corridor.

- Proposed evaluation/comparison criteria to be used to determine the general viability of the transportation technologies to operate in the corridor.

Staff is seeking additional input from the CTC and members of the public regarding the revised scope of the study so that it can be finalized and included in a Request for Proposals for the feasibility study.

AGT Feasibility Study CIP

Based on the revised and expanded proposed scope of work for the AGT feasibility study described above, a $300,000 capital project funding request has been included in the Fiscal Year 2016-17 CIP. (The cost estimate for the study previously discussed by the Council on February 2 was $200,000.)

If approved as part of the adopted Fiscal Year 2016-17 CIP, work on the AGT feasibility study project can begin some time after the start of the new fiscal year (July 1, 2016), likely with the issuance of a Request for Proposals for the feasibility study.

CONCLUSION

Staff requests input from the CTC and members of the public to further refine the proposed scope of work for an AGT system feasibility study so that work on the feasibility study can begin in Fiscal Year 2016-17.

LF-MAF/3/PWK
901-05-02-16M-E

Attachment: 1. Draft AGT Feasibility Study Scope of Work

DRAFT
AGT Feasibility Study
Scope of Work

Task 1 Study Area Characteristics

Review documentation regarding existing conditions, development projections, planned employment growth, and planned transportation improvements in the study area.

Review recent and current planning and transportation studies conducted by the City, including, but not limited to:

- 2030 General Plan and Environmental Impact Report (2012)
- Shoreline Transportation Study (2013)
- Shoreline Corridor Study (2014)
- North Bayshore Precise Plan (2012)
- North Bayshore Residential Uses Study (currently under way)
- Transit Center Master Plan (currently under way)

Review publicly available information relating to Caltrain's modernization project, Santa Clara Valley Transportation Authority (VTA) light rail and transit service improvements, and planned California High Speed Rail operations in the Peninsula corridor.

Task 2 Potential Passenger Demand/Market

Assess the potential passenger markets to be served by an Automated Guideway Transportation (AGT) system in the study area, including:

- Anticipated passenger volumes and characteristics (e.g., origin and destination).
- Service demand patterns (e.g., peak service demand times; service demand fluctuations based on commute patterns, ability to handle surges in demand because of transit/rail schedules; travel time; etc.).

- Likely employment centers and/or other destinations within the study area and anticipated passenger demand to travel to those location(s).

Task 3 Potential System Design/Characteristics

Identify options for system design/operation requirements, including:

- Conceptual route alternative(s).
- System design/configuration options (e.g., point to point versus multiple destinations, fully grade-separated or partially at-grade, etc.).
- Capacity, including surge capacity.
- Speed.
- Connections.
- Travel time.
- Passenger access/distribution.
- Potential for future expansion to connect to/serve other areas of the City.

Task 4 Transportation Technology Alternatives

Identify range of potential transportation technologies to serve the study area, including, but limited to, the following existing and potential technologies:

- Light rail.
- Autonomous shuttles/vehicles (assumes separate guideway would be required).
- Automated people mover.
- Group rapid transit.
- Personal rapid transit.

Task 5 Evaluation of Transportation Technologies

Conduct a high-level evaluation/comparison of transportation technologies to determine the general viability of the technologies to operate within the study area. Evaluation/comparison criteria should include, but not be limited to:

- Suitability of different options/technologies to serve anticipated passenger demand (i.e., capacity, speed, locations, travel time, etc.).
- Ability to operate within the physical/environmental/property constraints of the conceptual route alternative(s).
- Ability to operate within existing public right-of-way or land acquisition requirements, and land use implications.
- Potential for future expansion to connect to/serve other areas of the City.
- Order-of-magnitude costs for construction, operation, and maintenance.
- Potential operating models and funding sources (including free or fare system).
- Availability of technology (i.e., challenges/barriers to implementation, development status, confidence in cost estimates, etc.).
- Visual impacts.

LF/3/PWK
901-05-02-16SoW-E